



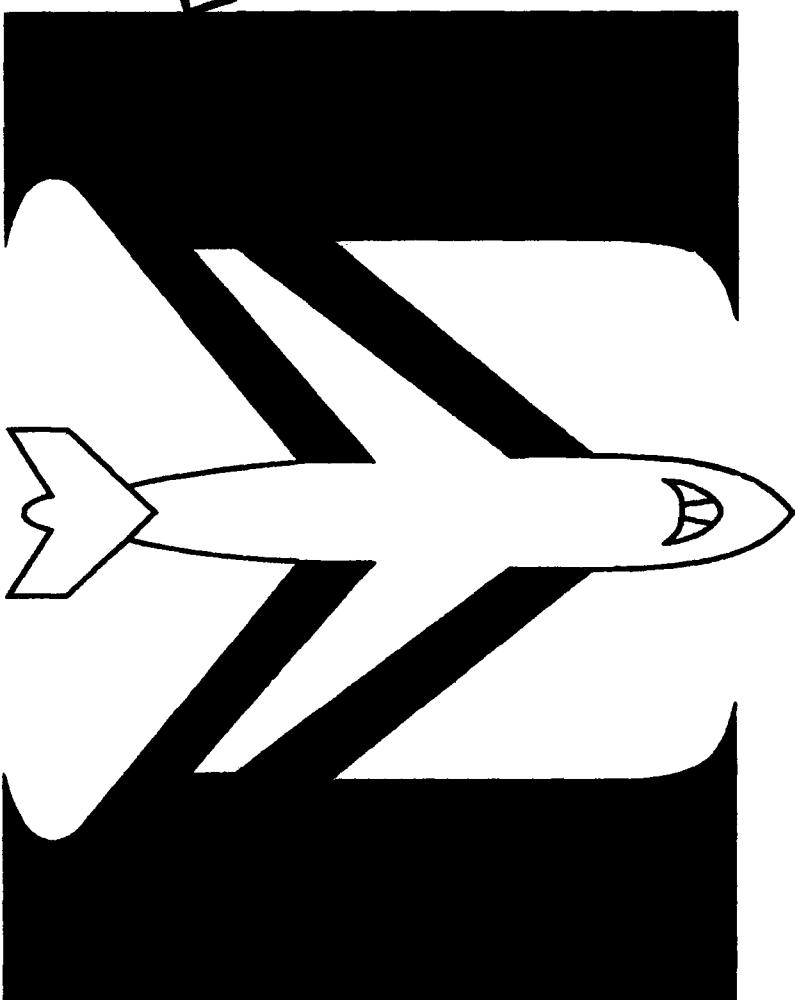
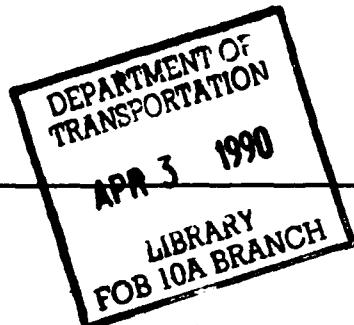
U.S. Department
of Transportation
Federal Aviation
Administration

U.S. CIVIL AIRMEN STATISTICS

2
DTIC FILE COPY

Calendar Year 1989

AD-A220 438



DISTRIBUTION STATEMENT A

Approved for public release
Distribution Unlimited

04 .06 00

Office of Management Systems
Management Standards and
Statistics Division
Washington, D.C. 20591

MANAGEMENT STANDARDS & DIVISION PUBLICATION INFORMATION

Below is a list of the publications compiled by the Management Standards & Statistics Division. Questions may be directed to us by phone: (202) 267-9938, or by writing Federal Aviation Administration, Management Standards & Statistics Division (AMS-400), 800 Independence Avenue, S.W., Washington, DC 20591

FAA Statistical Handbook of Aviation is a convenient source for historical data. It presents statistical information pertaining to the Federal Aviation Administration, the National Airspace System, Airports, Airport Activity, U.S. Civil Air Carrier Fleet, U.S. Civil Air Carrier Operating Data, Airmen, General Aviation Aircraft, Aircraft Accidents, Aeronautical Production & Import/Export.

Reporting period:	Calendar Year
Latest edition:	1987 data
Order from:	U.S. Government Printing Office or National Technical Information Service
Date 1988 information will be available:	Various
Date next publication is scheduled:	March 1989 (1988 Data)
Person to contact:	Patricia Beardsley

U.S. Civil Airmen Statistics is an annual study of detailed airmen statistics. It contains calendar year statistics on pilot and nonpilots and the number of certificates issued.

Reporting period:	Calendar Year
Latest edition:	1989
Order from:	Management Standards & Statistics Division or National Technical Information Service
Date 1990 information is available:	February 1991
Date next publication is scheduled:	March 1991 (1990 data)
Person to contact:	Patricia Carter

Census of U.S. Civil Aircraft is an annual publication that includes statistical data on the registered civil fleet, air carrier aircraft, and general aviation aircraft—both registered and active, detailed reports for general aviation aircraft by owner's state and county, and registered aircraft by make and model.

Reporting period:	Calendar Year
Latest edition:	1988 data
Order from:	U.S. Government Printing Office, or National Technical Information Service
Date 1989 Information will be available:	June 1990

Date next publication is scheduled: September 1990 (1989 data)

Person to contact: Patricia Beardsley

FAA Air Traffic Activity furnishes terminal and en route air traffic activity information (e.g., takeoffs & landings, flight plans filed) of the National Airspace System. The data is collected, compiled from the FAA-operated Airport Traffic Control Towers, Air Route Traffic Control Centers, Flight Service Stations, Approach Control Facilities, and FAA Contract-towered airports.

Reporting period: Fiscal Year

Latest edition: 1988 data

Order from: U.S. Government Printing Office or National Technical Information Service

Date 1989 information will be available: April 1990

Date next publication is scheduled: May 1990 (1989 data)

Person to contact: Nancy Trembley

General Aviation Activity and Avionics Survey publication presents the results of the general aviation activity and avionics survey conducted to obtain information on the activity and avionics of the U.S. registered general aviation aircraft fleet. The survey reveals estimated flying time of the active general aviation and region of based aircraft, and primary use. Estimates are included on fuel consumption, lifetime airframe hours, avionics, and engine hours.

Reporting period: Calendar Year

Latest edition: 1988 data

Order from: Government Printing Officer or National Technical Information Service

Date 1989 Information will be available: November 1990

Date next publication is available: December 1990 (1989 data)

Person to contact: Shung-Chai Huang

FAA Directory is published twice a year, it contains six sections of data: Washington/Region/Center headquarters' managers; field facilities' managers/ supervisors; regional area maps organizational charts; alphabetical listing; special interest groups; and glossary.

Latest edition: October 1989

Order from: U.S. Government Printing Office

Date next publication is scheduled: April 1990

Person to contact: Alfredia Brooks

Airport Activity Statistics of Certificated Route Air Carriers is a joint publication of the Federal Aviation Administration (FAA) and the Research & Special Programs Administration (RSPA). RSPA furnishes airport activity data on certificated route air carriers; FAA organizes publishes it. Included in the data are passenger enplanements, tons of enplaned freight, express and mail. Both scheduled nonscheduled service and domestic international operations shown by airport and carrier are also included. Breakdown of data includes departures enplanements/cargo/mail by airport, carrier & type of operation, and type of aircraft.

Reporting period:	Calendar Year
Latest edition:	1988 data
Order from:	Government Printing Office or National Technical Information Service
Date 1989 Information will be available:	September 1990
Date next publication is available:	November 1990 (1989 data)
Person to contact:	Patricia Beardsley

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

ORDERING INFORMATION

Addresses are listed below for ordering purposes.

National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. To call use (703) 487-4650 if you have a stock number or (703) 487-4780 if you do not have a stock number.

Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, D.C. 20402, (202) 783-3238 or contact any of the following GPO Bookstores located throughout the United States. Format: Original Book.

Main Bookstore

710 North Capitol St., N.W., Washington, D.C., 20402
FTS 275-2091, Commercial 202 275-2091.

Commerce Bookstore

14th & E St., N.W., Room 1604, Washington, D.C. 20230
FTS 377-3527, Commercial 202-377-3527.

H E W. Bookstore

Rm. 1528, H E W. North Bldg., 330 Independence Ave., S.W.,
Washington, D.C. 20201
FTS 472-7478, Commercial 202-472-7478.

Intl Communication Agency

1776 Pennsylvania Avenue, N.W., Washington, D.C. 20547
FTS 724-9928, Commercial 202-724-9928.

Pentagon Bookstore

Main Concourse, South End, Washington, D.C. 20310
FTS 557-1821, Commercial 202-557-1821.

State Bookstore

2317 North Lobby 21st & C Streets, N.W., Washington, D.C. 20520
FTS 632-1427, Commercial 703-632-1437.

Retail Sales outlet

8660 Cherry Lane, Laurel, Md 20810
No FTS Number, Commercial 301-953-7974.
Order Desk 202-783-3238.

Atlanta Bookstore

Rm. 100, Federal Bldg., 275 Peachtree Street, N.E.,
Atlanta, GA 30303
FTS 242-6946, Commercial 404-221-6947.

Birmingham Bookstore, Roebuck Shopping City.

9220 Parkway Roebuck Shopping Center, Birmingham, AL 35206
FTS 229-1056, Commercial 205-254-1056.

Boston Bookstore

Rm. G-25, JFK Federal Bldg., Sudbury Street, Boston, MA 02203
FTS 223-6071, Commercial 617-223-6071.

Chicago Bookstore

Rm. 1463, 14th Floor, Everett M. Dirksen Bldg., 219
S. Dearborn Street, Chicago, IL 60604
FTS 353-5133, Commercial 312-353-5133.

Cleveland Bookstore

1st Floor, Fed. Off. Bldg., 1240 E. 9th Street, Cleveland, OH 44199
FTS 293-4922, Commercial 216-522-4922.

Columbus Bookstore

Rm. 207, Federal Bldg., 200 North High Street,
Columbus, OH 43215
FTS 943-6056, Commercial 614-469-6956

Dallas Bookstore

Room 1C50, 1100 Commerce Street, Dallas, TX 75242
FTS 729-0076, Commercial 214-767-0076

Denver Bookstore

Room 117, Federal Bldg., 1961 Stout Street, Denver, CO 80294
FTS 327-3964, Commercial 303-837-3964.

Detroit Bookstore, Patrick V. McNamara Fed.

Bldg., Suite 160, 477 Michigan Avenue, Detroit, MI 48226
FTS 226-7816, Commercial 313-226-7816.

Houston Bookstore

45 College Center, 9319 Gulf Freeway, Houston, TX 77017
FTS 527-5453, Commercial 713-526-7517.

Jacksonville Bookstore

400 West Bay Street, Rm. 158, P.O. Box 35089,
Jacksonville, FL 32202
FTS 946-3801, Commercial 904-791-3801.

Kansas City Bookstore

Rm. 144, Fed. Off. Bldg., 601 East 12th Street,
Kansas City, MO 64106
FTS 758-2160, Commercial 816-374-2160.

Los Angeles Bookstore, Arco Plaza, Level "C"

505 South Flower St., Los Angeles, CA 90071
FTS 798-5841, Commercial 213-688-5941.

Milwaukee Bookstore

Rm. 190, Federal Bldg., 519 E. Wisconsin Avenue,
Milwaukee, WI 54202
FTS 362-1300, Commercial 414-291-1304.

New York Bookstore

Rm. 110, 26 Federal Plaza, New York, NY 10007
FTS 264-3825, Commercial 212-264-3825.

Philadelphia Bookstore

RM. 1214, Fed. Off. Bldg., 600 Arch Street, Philadelphia, PA 19106
FTS 597-0677, Commercial 215-597-0677.

Pittsburgh Bookstore

Rm. 118, Federal Bldg., 1000 Liberty Ave., Pittsburgh, PA 15222
FTS 722-2721, Commercial 412-644-2721.

Pueblo Bookstore

720 North Main Street, Majestic Bldg., Pueblo, CO 81003
FTS 323-9371, Commercial 303-544-3142.

San Francisco Bookstore

Rm. 1023, Fed. Off. Bldg., 450 Golden Gate Avenue,
San Francisco, CA 94102
FTS 556-6657, Commercial 415-556-0643.

Seattle Bookstore

Rm. 194, Fed. Off. Bldg., 915 Second Avenue, Seattle, WA 98174
FTS 399-4270, Commercial 206-442-4270.

PREFACE

The U.S. Civil Airmen Statistics is an annual study published to meet the demands of FAA, other government agencies, and industry for more detailed airmen statistics than those published in other FAA reports.

Statistics pertaining to airmen, both pilot and nonpilot, were obtained from the official airman certification records maintained at the FAA Aeronautical Center, Oklahoma City, Oklahoma.

An active Airmen is one who hold both an airmen certificate and a valid medical certificate. Airmen who must have a valid medical to exercise the privileges of their certificate are all airplane pilots, glider, flight navigators, and lighter-than-air pilots are not required to have a medical examination but the numbers represent only those who had a valid medical certificate. Mechanics, Parachute riggers, ground instructors, and dispatchers certificates represent all certificates on record at the Aeronautical Center.

This study was prepared in the Office of Management Systems, Management Standards and Statistics Division, Statistical Analysis Branch (AMS-420), by Patricia W. Carter.

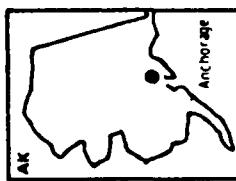
DISTRIBUTION: ZMS-348E

CONTENTS

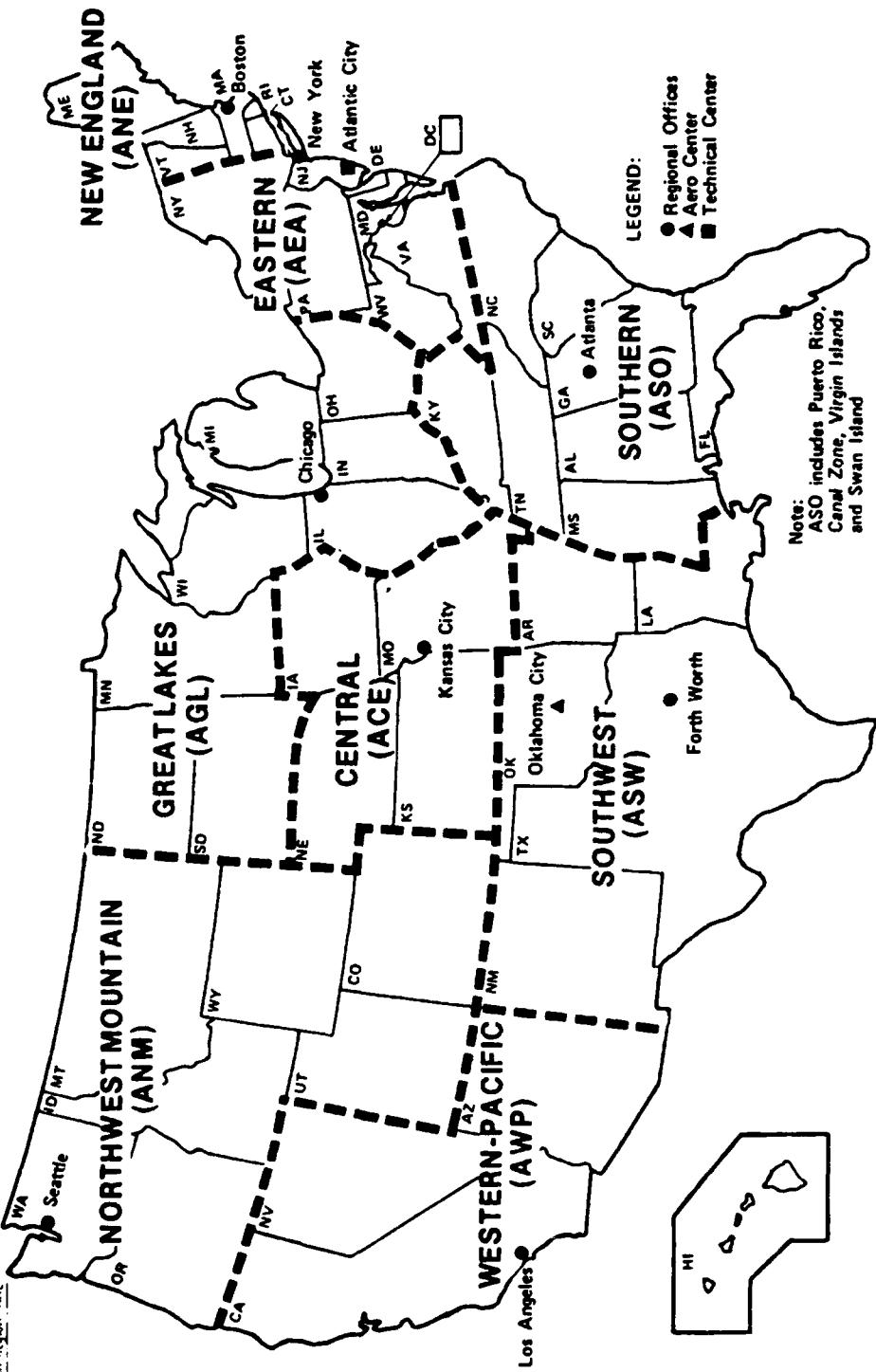
	PAGES
FAA Regional Boundaries	xi
I. Active Pilot Certificates Held	1
II. Active Nonpilot Certificates Held	17
III. Pilot Certificates Issued	23
 TABLES	
1. Active Pilot Certificates Held: December 31, 1980–1989	2
2. Active Women Pilot and Nonpilot Certificates Held, By Class of Certificates, and by FAA Region: December 31, 1989	3
3. Active Pilot and Nonpilot Certificates Held, by Class of Certificates, and by FAA Region: December 31, 1989	4
4. Active Pilot and Flight Instructors by FAA Region and State: December 31, 1989	6
5. Active Women Pilots and Flight Instructors by FAA Region and State: December 31, 1989	8
6. Active Helicopter Pilots by Class of Certificates: December 31, 1989	10
7. Active Glider Pilots by Class of Certificates: December 31, 1989	11
8. Total Helicopter and Glider Pilots: December 31, 1985–1989	12
9. Total Pilots and Instrument Rated Pilots: December 31, 1985–1989	12
10. Active Pilot Certificates Held by Category and Age Group of Holder: 1989, 1988, 1985	13
11. Average Age of Active Pilots by Category: December 31, 1980–1989	14
12. Instrument Rating Held by Class of Certificates: December 31, 1989 and 1988	15
13. Instrument Ratings Held, by Class of Certificates, by FAA Region: December 31, 1989	16
14. Active Nonpilot Airmen Certificates Held, by FAA Region and State: December 31, 1989	18
15. Active Women Nonpilot Certificates Held, by FAA Region and State: December 31, 1989	20
16. Pilot Certificates Issued, by Category: December 31, 1985–1989	24
17. Pilot Certificates Issued, by Category and Conductor: December 31, 1989	25
18. Instrument Ratings Issued: 1989, 1988, 1985	26
19. Student Certificates Issued, by Month: 1985–1989	27

FAA REGIONAL BOUNDARIES

Includes Locations of Regional Headquarters and Centers



Alaska Region AAI



I. ACTIVE PILOT CERTIFICATES HELD

TABLE 1
ESTIMATED ACTIVE PILOT CERTIFICATES HELD
DECEMBER 31, 1980 - 1989

CATEGORY	1980 1/	1981	1982	1983	1984	1985	1986	1987	1988	1989
Pilot--Total	827,071	764,182	733,255	718,004	722,376	709,540	709,118	699,653	694,016	700,010
Student	199,833	179,912	156,361	147,197	150,081	146,652	150,273	146,016	136,913	142,544
Private	357,479	328,562	322,094	318,643	320,086	311,086	305,736	300,949	299,786	293,179
Commercial	183,442	168,580	165,093	159,495	155,929	151,632	147,798	143,645	143,030	144,540
Airline Transport	69,569	70,311	73,471	75,938	79,192	82,740	87,186	91,287	96,968	102,087
Helicopter (only)	6,030	6,453	7,034	7,237	7,532	8,123	8,581	8,702	8,608	8,863
Glider (only) 2/	7,039	7,388	7,842	8,157	8,390	8,168	8,411	7,901	7,600	7,708
Lighter-than-air 2/	3,679	2,976	1,360	1,337	1,166	1,139	1,133	1,153	1,111	1,089
Nonpilot--Total r/	368,356	382,840	399,661	413,199	426,802	395,139	410,079	427,962	448,710	468,405
Mechanic 3/	250,157	262,705	277,436	288,335	298,028	274,100	284,241	297,178	312,419	326,243
Parachute Rigger 3/	9,547	9,716	9,893	10,074	10,194	9,395	9,535	9,659	9,770	9,879
Ground Instructor 3/	61,550	63,246	65,004	66,385	67,463	58,214	59,443	60,861	62,582	64,503
Dispatcher 3/	6,799	7,094	7,580	8,223	8,980	8,511	9,025	9,491	10,020	10,455
Flight Navigator	1,936	1,785	1,695	1,636	1,603	1,542	1,512	1,445	1,400	1,357
Flight Engineer	38,367	38,294	38,053	38,546	40,534	43,377	46,323	49,328	52,519	55,968
Flight Instructor										
Certificates 4/	60,440	57,523	62,492	62,201	61,173	58,940	57,355	60,316	61,798	61,472
Instrument Ratings 5/	260,461	252,535	255,073	254,271	256,584	258,559	262,388	266,122	273,804	282,804

1/ For 1980 only, a valid medical certificate was defined as one that was issued within the last 27 months.

2/ Glider and lighter-than-air pilots are not required to have a medical examination; however, the totals above represent pilots received a medical examination within the last 25 months.

3/ Numbers represent all certificates on record. No medical examination required.

4/ Not included in total.

5/ Special ratings shown on pilot certificates, do not indicate additional certificates.

r/ Revised.

TABLE 2
ESTIMATED ACTIVE WOMEN CERTIFICATES HELD
DECEMBER 31, 1980 - 1989

CATEGORY	1980 1/	1981	1982	1983	1984	1985	1986	1987	1988	1989
Pilot--Total	52,902	47,721	45,305	43,648	44,339	43,483	43,082	42,578	42,299	42,366
Student	26,006	22,591	19,958	18,696	19,435	19,058	18,899	18,367	17,529	17,637
Private	21,554	19,602	19,388	18,801	18,616	17,974	17,532	17,349	17,544	16,988
Commercial	3,993	4,101	4,257	4,281	4,232	4,185	4,176	4,208	4,410	4,760
Airline Transport	480	584	749	884	1,032	1,184	1,334	1,538	1,745	1,898
Helicopter (only)	55	87	113	144	167	196	232	247	259	273
Glider (only) 2/	496	540	574	599	631	653	667	627	590	586
Lighter-than-air 2/	318	216	266	243	226	233	242	242	222	224
Nonpilot--Total r/	4,779	5,201	5,697	6,151	6,591	6,017	6,502	7,101	7,842	8,651
Mechanic 3/	890	1,051	1,298	1,493	1,649	1,775	1,964	2,237	2,565	2,892
Parachute Rigger 3/	562	580	593	605	614	412	414	428	441	451
Ground Instructor 3/	3,015	3,213	3,391	3,554	3,680	2,980	3,087	3,232	3,391	3,554
Dispatcher 3/	141	167	199	249	310	394	460	524	622	711
Flight Navigator	171	189	215	248	336	455	577	680	822	1
Flight Engineer	0	1	1	2	2	1	0	0	1	1,042
Flight Instructor Certificates 4/	2,079	2,165	2,532	2,685	2,736	2,731	2,687	2,909	3,018	3,074

1/ For 1980 only, a valid medical certificate was defined as one that was issued within the last 27 months.

2/ Glider and lighter-than-air pilots are not required to have a medical examination; however, the totals above represent pilots who received a medical examination within the last 25 months.

3/ Numbers represent all certificates on record. No medical examination required.

4/ Not included in total.

r/ Revised.

TABLE 3
ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD,
BY CLASS OF CERTIFICATES AND BY FAA REGION
DECEMBER 31, 1989

CLASS OF CERTIFICATE	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Total—All Pilots	700,010	9,600	34,957	91,582	115,185	34,465	65,470	120,250	81,945	122,344	24,212
Student Pilots—Total	142,544	1,490	6,180	21,317	24,000	8,265	12,633	24,061	15,233	24,474	4,891
Private Pilots—Total	293,179	4,540	17,512	37,126	55,210	14,638	28,029	46,123	33,312	52,407	4,282
Private Airplane (only)	282,540	4,411	17,056	35,501	53,875	14,132	26,966	44,218	32,185	50,279	3,917
Private Airplane, Private Glider	4,049	37	168	683	596	198	378	605	392	935	57
Private Airplane, Commercial Glider	807	3	20	172	118	63	101	82	72	169	7
Private Airplane, Private Gyroplane	31	0	3	2	9	2	0	2	7	6	0
Private Airplane, Private Helicopter	1,459	12	62	178	162	92	163	229	179	297	85
Private Airplane, Private Glider, Private Helicopter	58	0	1	14	9	5	4	5	2	14	4
Private Airplane, Commercial Helicopter	4,186	76	202	567	436	145	409	974	470	699	208
Private Airplane, Private Glider, Commercial Helicopter	30	0	0	6	2	1	7	3	3	5	3
Private Airplane, Commercial Glider, Commercial Helicopter	17	1	0	3	1	0	1	5	2	3	1
Private Airplane, Commercial Gyroplane, Commercial Helicopter	2	0	0	0	2	0	0	0	0	0	0
Commercial Pilots—Total	144,540	2,417	7,088	17,848	21,223	5,929	13,303	26,206	18,434	24,636	7,456
Commercial Airplane (only)	123,612	2,089	6,235	14,946	18,941	5,123	11,183	21,630	15,741	20,618	7,106
Commercial Airplane, Private Glider	2,057	27	98	316	282	69	232	361	218	428	26
Commercial Airplane, Commercial Glider	3,685	30	131	560	505	210	417	570	417	812	33
Commercial Airplane, Commercial Gyroplane, Commercial Glider	3	0	1	0	1	0	0	0	0	1	0
Commercial Airplane, Private Helicopter	325	6	12	50	54	12	30	49	37	65	10
Commercial Airplane, Commercial Glider, Private Helicopter	27	0	0	6	5	1	1	2	3	7	2
Commercial Airplane, Commercial Helicopter	14,085	255	585	1,859	1,355	477	1,357	3,452	1,938	2,541	266
Commercial Airplane, Private Glider, Commercial Helicopter	154	3	5	23	25	7	15	31	13	28	4
Commercial Airplane, Commercial Glider, Commercial Helicopter	535	5	20	84	45	28	59	102	60	125	7
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	19	1	1	2	4	0	3	3	0	4	1
Commercial Airplane, Commercial Gyroplane	27	1	0	1	4	2	5	5	5	4	0
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter	11	0	0	1	2	0	1	1	2	3	1
Commercial Glider											

TABLE 3
ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD,
BY CLASS OF CERTIFICATES AND BY FAA REGION
DECEMBER 31, 1989

CLASS OF CERTIFICATE	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Airline Transport Pilots—Total	102,087	1,030	3,664	12,182	12,878	4,683	9,976	20,773	13,117	17,009	6,777
Airline Transport Airplane (only)	100,317	992	3,622	11,861	12,713	4,569	9,830	20,428	12,838	16,734	6,730
Airline Transport Airplane, Airline Transport Helicopter	1,770	38	42	321	163	114	146	345	279	275	47
Rotorcraft (only) Pilots—Total	8,863	105	326	1,386	729	426	600	2,257	1,106	1,284	644
Private Gyroplane	12	0	1	0	4	1	1	1	1	1	2
Private Helicopter	1,264	6	27	181	90	128	74	139	89	310	220
Commercial Helicopter	7,116	91	295	1,133	608	282	490	2,041	905	919	352
Commercial Helicopter, Private											
Glider	6	0	0	3	0	0	0	1	0	2	0
Commercial Helicopter, Commercial											
Glider	2	0	0	1	0	0	0	0	0	1	0
Commercial Gyroplane	1	0	0	0	1	0	0	0	0	0	0
Commercial Helicopter, Commercial											
Gyroplane	1	0	0	0	0	0	0	0	1	0	0
Airline Transport Helicopter	461	8	3	68	26	15	35	75	110	51	70
Glider (only)—Total	7,708	14	124	1,586	955	472	920	670	565	2,355	147
Private Glider	6,652	10	109	1,336	820	386	692	583	484	2,104	128
Commercial Glider	1,056	4	15	250	135	86	128	87	81	251	19
Lighter-Than-Air—Total	1,089	4	63	137	192	52	109	160	178	179	15
Nonpilots—Total	468,405	4,676	23,091	65,679	60,834	19,676	40,102	82,496	61,726	88,727	21,398
Mechanic 3/	326,243	3,254	17,817	47,108	41,678	13,488	25,678	54,632	44,148	63,857	14,533
Parachute Rigger 3/	9,879	154	435	1,682	1,238	354	1,324	1,887	999	1,641	165
Ground Instructor 3/	64,503	732	3,206	8,842	10,103	2,806	5,914	11,188	8,446	11,576	1,690
Dispatcher 3/	10,455	169	157	2,014	1,027	268	536	1,976	824	1,495	1,989
Flight Navigator	1,357	4	12	217	37	149	142	237	73	392	94
Flight Engineer	55,968	363	1,464	5,816	6,751	2,611	6,508	12,526	7,236	9,766	2,927
Flight Instructor Certificates—Total 4/	61,472	728	3,193	8,704	10,649	2,899	5,940	10,441	7,588	10,212	1,118
Instrument Ratings 5/	282,804	3,442	12,703	36,438	41,754	12,663	25,540	54,610	35,179	47,921	12,554

1/ Includes Outside U.S. total.

2/ Outside U.S. includes airmen certificated by the FAA who live outside the 50 states or foreign countries.

3/ Total ratings issued to date. These ratings retain their validity without periodic medical examinations.

4/ Not included in total.

5/ Special ratings shown on pilot certificates, do not indicate additional ratings.

TABLE 4
ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS
BY FAA REGION AND STATE
DECEMBER 31, 1989

FAA REGION AND STATE	Total Pilots	Students	Private	Commercial	Airline Transport	Misc. 2/	Flight Instructor 3/
Total	700,010	142,544	293,179	144,540	102,087	17,660	61,472
United States--Total	675,798	137,653	288,897	137,084	95,310	16,854	60,354
Alaskan Region--Total	9,600	1,490	4,540	2,417	1,030	123	728
Central Region--Total	34,957	6,180	17,512	7,088	3,664	513	3,193
Iowa	7,334	1,303	4,066	1,405	472	88	626
Kansas	9,372	1,492	4,795	1,984	978	123	879
Missouri	13,153	2,492	6,083	2,486	1,836	256	1,292
Nebraska	5,098	893	2,568	1,213	378	46	396
Eastern Region--Total	91,582	21,317	37,126	17,848	12,182	3,109	8,704
Delaware	1,732	382	697	331	281	41	194
District of Columbia	613	149	254	135	43	32	58
Maryland	9,999	2,109	4,408	1,935	1,258	289	935
New Jersey	14,532	3,422	5,800	2,570	2,234	506	1,366
New York	25,156	6,440	10,315	4,836	2,480	1,085	2,304
Pennsylvania	21,523	5,203	8,979	3,689	3,024	628	2,220
Virginia	15,525	3,037	5,468	3,878	2,681	461	1,413
West Virginia	2,502	575	1,205	474	181	67	214
Great Lakes Region--Total	115,185	24,000	55,210	21,223	12,876	1,876	10,619
Illinois	27,021	5,891	11,994	4,774	3,904	458	2,722
Indiana	12,410	2,746	6,075	2,303	1,117	169	1,141
Michigan	20,016	4,305	9,907	3,511	1,855	438	1,805
Minnesota	16,185	2,997	7,630	2,999	2,389	170	1,383
North Dakota	3,281	666	1,618	872	108	17	290
Ohio	21,936	4,554	10,610	4,106	2,185	481	2,117
South Dakota	2,494	496	1,203	594	181	20	218
Wisconsin	11,842	2,345	6,173	2,064	1,137	123	966
New England Region--Total	34,465	8,265	14,638	5,929	4,683	950	2,899
Connecticut	9,151	2,036	3,540	1,519	1,791	265	777
Maine	3,879	852	1,779	822	362	64	298
Massachusetts	13,023	3,506	5,825	2,126	1,174	392	1,098
New Hampshire	4,928	1,065	1,937	819	980	127	439
Rhode Island	1,602	343	746	306	165	42	115
Vermont	1,882	463	811	337	211	60	172

TABLE 4
ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS
BY FAA REGION AND STATE
DECEMBER 31, 1989

FAA REGION AND STATE	Total Pilots	Students	Private	Commercial	Airline Transport	Misc. 2/	Flight Instructor 3/
Northwest Mountain Region--Total	65,470	12,633	28,029	13,303	9,976	1,529	5,940
Colorado	17,536	3,828	6,272	3,459	3,441	536	1,797
Idaho	4,231	695	2,098	950	421	67	365
Montana	3,924	673	1,993	900	320	38	362
Oregon	10,039	1,864	5,213	2,005	765	192	837
Utah	5,690	1,180	2,418	1,025	945	122	467
Washington	22,110	4,077	8,981	4,582	3,927	543	1,946
Wyoming	1,940	316	1,054	382	157	31	166
Southern Region--Total	120,250	24,061	46,123	26,206	20,773	3,087	10,441
Alabama	9,394	1,808	3,699	2,275	748	864	883
Florida	47,220	9,061	17,960	11,015	8,335	849	4,192
Georgia	18,607	3,458	6,461	3,719	4,617	352	1,448
Kentucky	5,775	1,206	2,496	995	939	139	522
Mississippi	4,628	992	1,797	1,360	380	99	397
North Carolina	15,415	3,358	6,180	2,993	2,486	398	1,205
South Carolina	6,969	1,614	2,836	1,609	786	124	574
Tennessee	12,242	2,564	4,694	2,240	2,482	262	1,220
Southwest Region--Total	81,945	15,233	33,312	18,434	13,117	1,849	7,588
Arkansas	5,962	1,183	2,681	1,551	475	72	506
Louisiana	8,136	1,612	3,110	2,182	929	303	741
New Mexico	5,152	1,127	2,052	1,250	511	212	502
Oklahoma	10,886	2,109	5,263	2,380	982	152	928
Texas	51,809	9,202	20,206	11,071	10,220	1,110	4,911
Western-Pacific Region--Total	122,344	24,474	52,407	24,636	17,009	3,818	10,212
Arizona	15,815	3,143	6,460	3,360	2,310	542	1,531
California	97,332	19,437	43,034	19,303	12,640	2,918	7,898
Hawaii	3,814	897	866	905	946	200	284
Nevada	5,383	997	2,047	1,068	1,113	158	499
Outside U. S. --Total 4/	24,212	4,891	4,282	7,456	6,777	806	1,118
Other U. S. Areas:	1,977	601	641	354	338	43	0
American Samoa	16	2	5	3	4	2	0
Canal Zone	2	1	0	0	1	0	0
Guam	138	29	27	22	60	0	0
Puerto Rico	1,528	506	509	261	215	37	0
Virgin Island	290	62	100	66	58	4	0
Wake Island	3	1	0	2	0	0	0

1/ Includes Outside U.S.

2/ Includes helicopter, glider, and lighter-than-air.

3/ Not included in total.

4/ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 5
ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS
BY FAA REGION AND STATE
DECEMBER 31, 1989

FAA REGION AND STATE	Total Pilots	Students	Private	Commercial	Airline Transport	Misc. /2	Flight Instructor 3/
Total 1/	42,376	17,637	16,988	4,760	1,898	1,093	3,074
United States--Total	41,590	17,310	16,763	4,598	1,860	1,059	3,029
Alaskan Region--Total	747	264	378	78	21	6	43
Central Region--Total	1,894	747	883	168	63	33	116
Iowa	339	129	163	34	8	5	15
Kansas	521	197	258	40	19	7	32
Missouri	788	333	343	68	27	17	53
Nebraska	246	88	119	26	9	4	16
Eastern Region--Total	5,864	2,633	2,142	649	235	205	442
Delaware	106	50	33	13	6	4	9
District of Columbia	57	22	26	2	6	1	4
Maryland	683	283	285	64	35	16	48
New Jersey	903	434	290	107	38	34	73
New York	1,593	727	552	183	51	80	118
Pennsylvania	1,460	652	559	158	50	41	105
Virginia	939	410	349	109	46	25	79
West Virginia	123	55	48	13	3	4	6
Great Lakes Region--Total	6,898	2,843	2,857	795	280	123	548
Illinois	1,722	721	668	213	98	22	141
Indiana	689	281	290	80	25	13	51
Michigan	1,227	516	495	135	41	40	92
Minnesota	930	350	402	110	52	16	87
North Dakota	164	56	75	32	1	0	16
Ohio	1,350	572	559	147	44	28	103
South Dakota	112	42	55	10	4	1	6
Wisconsin	704	305	313	68	15	3	52
New England Region--Total	2,312	1,047	874	220	108	63	163
Connecticut	578	250	210	58	39	21	47
Maine	210	93	92	17	7	1	13
Massachusetts	932	451	344	87	33	17	60
New Hampshire	348	157	126	31	19	15	30
Rhode Island	105	34	55	12	3	1	3
Vermont	139	62	47	15	7	8	10

TABLE 5
ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS
BY FAA REGION AND STATE
DECEMBER 31, 1989

FAA REGION AND STATE	Total Pilots	Students	Private	Commercial	Airline Transport	Misc. /2	Flight Instructor 3/
Northwest Mountain Region--Total	4,394	1,729	1,866	483	197	109	319
Colorado	1,335	583	462	159	82	49	124
Idaho	254	89	121	35	5	4	21
Montana	192	75	94	19	3	1	13
Oregon	717	272	344	68	19	14	45
Utah	261	111	106	22	15	7	16
Washington	1,532	567	679	179	73	34	98
Wyoming	103	32	60	11	0	0	2
Southern Region--Total	6,380	2,791	2,355	718	367	149	457
Alabama	400	177	150	25	7	41	19
Florida	2,854	1,202	1,090	367	148	47	223
Georgia	820	363	313	81	48	15	47
Kentucky	263	111	93	30	28	1	22
Mississippi	233	116	80	22	10	5	13
North Carolina	808	365	291	87	46	19	61
South Carolina	340	178	109	29	16	8	17
Tennessee	662	279	229	77	64	13	55
Southwest Region--Total	4,409	1,857	1,787	478	188	99	308
Arkansas	277	121	127	24	3	2	17
Louisiana	338	158	126	40	10	4	26
New Mexico	390	176	121	46	16	31	37
Oklahoma	625	246	274	71	29	5	51
Texas	2,779	1,156	1,139	297	130	57	177
Western-Pacific Region--Total	8,692	3,399	3,621	999	401	272	633
Arizona	1,189	475	475	136	52	51	93
California	6,875	2,659	2,928	790	308	190	491
Hawaii	269	124	67	35	26	17	26
Nevada	359	141	151	38	15	14	23
Outside U. S. --Total 4/	786	327	225	162	38	34	45
Other U. S. Areas:	89	52	20	7	8	2	0
American Samoa	1	1	0	0	0	0	0
Canal Zone	0	0	0	0	0	0	0
Guam	13	7	2	1	3	0	0
Puerto Rico	57	39	13	1	2	2	0
Virgin Island	17	4	5	5	3	0	0
Wake Island	1	1	0	0	0	0	0

1/ Includes Outside U.S.

2/ Includes helicopter, glider, and lighter-than-air.

3/ Not included in total.

4/ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 6
ESTIMATED ACTIVE HELICOPTER PILOTS
BY CLASS OF CERTIFICATES
DECEMBER 31, 1989

CLASS OF CERTIFICATE	Number of Certificates Held
TOTAL	31,602
Private Helicopter	1,264
Private Helicopter, Private Airplane	1,459
Private Helicopter, Private Airplane, Private Glider	58
Private Helicopter, Commercial Airplane	325
Private Helicopter, Commercial Airplane, Commercial Glider	27
Private Gyroplane	12
Private Gyroplane, Private Airplane	31
Commercial Helicopter	7,116
Commercial Helicopter, Private Airplane	4,186
Commercial Helicopter, Private Glider	6
Commercial Helicopter, Commercial Glider	2
Commercial Helicopter, Private Airplane, Commercial Gyroplane	2
Commercial Helicopter, Private Airplane, Private Glider	30
Commercial Helicopter, Private Airplane, Commercial Glider	17
Commercial Helicopter, Commercial Airplane	14,085
Commercial Helicopter, Commercial Airplane, Private Glider	154
Commercial Helicopter, Commercial Airplane, Commercial Glider	535
Commercial Gyroplane	1
Commercial Helicopter, Commercial Airplane, Commercial Gyroplane	19
Commercial Helicopter, Commercial Airplane, Commercial Gyroplane, Commercial Glider	11
Commercial Helicopter, Commercial Gyroplane	1
Commercial Gyroplane, Commercial Airplane	27
Commercial Gyroplane, Commercial Airplane, Commercial Glider	3
Airline Transport Helicopter	461
Airline Transport Airplane, Airline Transport Helicopter	1,770

TABLE 7
ESTIMATED ACTIVE GLIDER PILOTS
BY CLASS OF CERTIFICATES
DECEMBER 31, 1989

CLASS OF CERTIFICATE	Number of Certificates Held
Total	19,149
Private Glider	6,652
Private Glider, Private Airplane	4,049
Private Glider, Private Airplane, Private Helicopter	58
Private Glider, Private Airplane, Commercial Helicopter	30
Private Glider, Commercial Airplane	2,057
Private Glider, Commercial Airplane, Commercial Helicopter	154
Private Glider, Commercial Helicopter	6
Commercial Glider	1,056
Commercial Glider, Commercial Airplane	3,685
Commercial Glider, Private Airplane	807
Commercial Glider, Private Airplane, Commercial Helicopter	17
Commercial Glider, Commercial Helicopter	2
Commercial Glider, Commercial Airplane, Private Helicopter	27
Commercial Glider, Commercial Airplane, Commercial Helicopter	535
Commercial Glider, Commercial Airplane, Commercial Gyroplane	3
Commercial Glider, Commercial Airplane, Commercial Gyroplane, Commercial Helicopter	11

TABLE 8
ESTIMATED ACTIVE HELICOPTER AND GLIDER PILOTS
DECEMBER 31, 1985-1989

Total Helicopter Pilots 1/			Total Glider Pilots 2/	
Calendar Year	Number	Percent Change	Number	Percent Change
1989	31,602	0.8%	19,149	0.3%
1988	31,349	-0.5%	19,095	-2.2%
1987	31,513	-0.6%	19,530	-4.1%
1986	31,697	1.6%	20,355	0.2%
1985	31,206	2.3%	20,308	-2.0%

1/ Includes pilots with ratings to fly helicopters only.

2/ Includes pilots with ratings to fly gliders only.

TABLE 9
ESTIMATED TOTAL PILOTS AND INSTRUMENT RATED PILOTS
DECEMBER 31, 1985-1989

Instrument Rated Pilots			
Calendar Year	Total Number 1/	Number	Percent of Total
1989	557,466	282,804	51%
1988	557,103	273,804	49%
1987	553,637	266,122	48%
1986	558,845	262,388	47%
1985	562,888	258,559	46%

1/ Excludes student pilots.

TABLE 10
ESTIMATED ACTIVE PILOT CERTIFICATES HELD
BY CATEGORY AND AGE GROUP OF HOLDER
1989, 1988, AND 1985

YEAR	Type of Pilot Certificates								
	Total Active Pilots			Student			Private		
	1989	1988	1985	1989	1988	1985	1989	1988	1985
Total	700,010	694,016	709,540	142,544	136,913	146,652	293,179	299,786	311,086
Age Group									
14-15	233	243	266	233	243	266	0	0	0
16-19	19,487	19,995	16,868	15,207	15,224	13,184	3,910	4,367	3,382
20-24	55,353	55,141	59,171	24,346	23,838	26,389	19,804	20,824	22,727
25-29	82,706	83,355	91,188	25,708	25,187	28,420	29,133	31,308	35,897
30-34	96,167	96,632	103,012	22,930	21,946	24,868	38,367	40,858	46,081
35-39	97,183	96,922	109,677	18,529	17,420	19,765	43,781	44,641	47,322
40-44	98,638	97,054	93,050	14,000	12,959	13,191	41,769	41,632	40,288
45-49	79,453	77,435	72,354	8,847	8,216	8,029	34,283	34,073	32,153
50-54	58,701	57,909	59,996	5,269	4,935	5,543	25,691	25,962	28,473
55-59	46,890	46,820	47,698	3,536	3,363	3,716	22,376	23,453	27,206
60 and over	65,199	62,510	56,260	3,939	3,582	3,281	34,065	32,668	27,557

YEAR	Type of Pilot Certificates								
	Commercial			Airline Transport			Helicopter (Only)		
	1989	1988	1985	1989	1988	1985	1989	1988	1985
Total	144,540	143,030	151,632	102,087	96,968	82,740	8,863	8,608	8,123
Age Group									
14-15	0	0	0	0	0	0	0	0	0
16-19	244	260	135	0	0	0	24	18	20
20-24	9,654	8,804	8,193	411	433	528	817	854	789
25-29	18,687	17,542	17,323	6,258	6,395	6,370	2,265	2,228	2,178
30-34	16,944	16,592	17,036	14,920	14,224	11,807	1,823	1,749	1,572
35-39	15,924	16,190	22,866	16,112	15,692	15,982	1,252	1,396	1,945
40-44	20,277	21,387	23,683	19,490	18,226	13,790	1,629	1,456	944
45-49	18,365	18,282	18,432	16,331	15,456	12,541	638	536	407
50-54	13,783	13,897	15,274	13,074	12,263	9,933	260	222	153
55-59	11,529	11,394	10,310	8,784	7,939	5,695	88	90	77
60 and over	19,133	18,682	18,380	6,707	6,340	6,094	67	59	38

YEAR	Type of Pilot Certificates								
	Glider (Only) 1/			Lighter-than-air 1/			Flight Instructor 2/		
	1989	1988	1985	1989	1988	1985	1989	1988	1985
Total	7,708	7,600	8,168	1,089	1,111	1,139	61,472	61,798	58,940
Age Group									
14-15	0	0	0	0	0	0	0	0	0
16-19	91	112	130	11	14	17	66	95	65
20-24	286	346	500	35	42	45	4,649	4,484	4,379
25-29	548	574	847	107	121	153	8,062	8,048	8,218
30-34	983	1,052	1,399	200	211	249	8,252	8,622	8,640
35-39	1,314	1,307	1,485	271	276	312	8,282	8,450	9,859
40-44	1,253	1,171	978	220	223	176	9,251	9,518	8,330
45-49	844	764	698	145	108	94	7,470	7,372	6,251
50-54	591	581	574	33	49	46	5,529	5,471	4,946
55-59	539	542	660	38	39	34	4,196	4,124	3,363
60 and over	1,259	1,151	897	29	28	13	5,715	5,614	4,889

1/ Glider and lighter-than-air pilots are not required to have a medical examination; however, totals above represent pilots who received a medical examination.

2/ Not included in total active pilots.

TABLE 11
AVERAGE AGE OF ACTIVE PILOTS BY CATEGORY

CALENDAR YEAR	TOTAL 1/	STUDENT	PRIVATE	COMMERCIAL	AIRLINE TRANSPORT
1980	37.5	30.5	39.0	40.4	41.9
1981	37.8	30.7	39.3	40.7	42
1982	38.3	31.2	39.5	41.0	42.3
1983	38.8	31.7	40.0	41.5	42.5
1984	39.2	32.1	40.4	42.0	42.7
1985	39.5	32.4	40.8	42.4	42.8
1986	39.7	32.2	41.1	42.6	43
1987	39.9	32.3	41.4	42.7	43.1
1988	40.1	32.5	41.4	42.6	43.2
1989	40.2	32.7	41.8	42.5	43.4

1/ Includes helicopter (only), glider (only), and lighter-than-air pilots not shown separately.

TABLE 12
ESTIMATED INSTRUMENT RATINGS HELD
BY CLASS OF CERTIFICATES
DECEMBER 31, 1989 AND 1988

CLASS OF CERTIFICATE	1989	1988	Percent Change
Total--All Pilots	282,804	273,804	3%
Private Pilots--Total	51,067	49,381	3%
Private Airplane (only)	48,859	45,316	3%
Private Airplane, Private Glider	1,023	1,007	2%
Private Airplane, Commercial Glider	119	108	10%
Private Airplane, Private Helicopter	403	356	13%
Private Airplane, Private Glider, Private Helicopter	27	25	8%
Private Airplane, Commercial Helicopter	2,606	2,537	3%
Private Airplane, Private Gyroplane	5	3	67%
Private Airplane, Private Glider, Commercial Helicopter	12	15	-20%
Private Airplane, Commercial Glider, Commercial Helicopter	12	13	-8%
Private Airplane, Other	1	1	0%
Commercial Pilots--Total	123,908	121,674	2%
Commercial Airplane (only)	105,402	102,982	2%
Commercial Airplane, Private Glider	1,783	1,778	0%
Commercial Airplane, Commercial Glider	3,037	3,033	0%
Commercial Airplane, Private Helicopter	282	264	7%
Commercial Airplane, Commercial Helicopter	12,708	12,911	-2%
Commercial Airplane, Private Glider, Commercial Helicopter	136	132	3%
Commercial Airplane, Commercial Glider, Commercial Helicopter	488	506	-4%
Commercial Airplane, Commercial Gyroplane	19	15	27%
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	16	18	-11%
Commercial Airplane, Commercial Gyroplane, Commercial Glider	2	1	100%
Commercial Airplane, Commercial Glider, Private Helicopter	24	21	14%
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter	11	13	-15%
Airline Transport Pilots--Total	102,087	96,968	5%
Airline Transport Airplane (only)	100,317	95,282	5%
Airline Transport Airplane, Airline Transport Helicopter	1,770	1,686	5%
Rotorcraft Pilots--Total	5,742	5,781	-1%
Commercial Helicopter	5,660	5,695	-1%
Airline Transport Helicopter	71	75	-5%
Other	11	11	0%

TABLE 13
ESTIMATED INSTRUMENT RATINGS HELD, BY CLASS OF CERTIFICATES, BY FAA REGION
DECEMBER 31, 1989

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Total—All Pilots	282,804	3,442	12,703	36,438	41,754	12,663	25,540	54,610	35,179	47,921	12,554
Private Pilots—Total	51,067	341	2,848	7,218	9,726	2,600	3,897	8,917	5,667	9,394	459
Private Airplane (only)	46,850	285	2,632	6,561	9,237	2,407	3,541	7,898	5,175	8,713	410
Private Airplane, Private Glider	1,023	5	33	164	154	60	69	166	103	256	13
Private Airplane, Commercial Glider	119	2	4	18	14	14	22	8	15	21	1
Private Airplane, Private Helicopter	403	1	18	54	50	27	38	80	53	76	6
Private Airplane, Private Glider, Private Helicopter	27	0	0	6	5	2	3	3	1	6	1
Private Airplane, Commercial Helicopter	2,606	47	159	410	262	88	219	757	316	320	28
Private Airplane, Private Gyroplane	5	0	2	0	2	1	0	0	0	0	0
Private Airplane, Private Glider, Commercial Helicopter	12	0	0	3	0	1	4	2	2	0	0
Private Airplane, Commercial Glider, Commercial Helicopter	12	1	0	2	1	0	1	3	2	2	0
Private Airplane, Other	1	0	0	0	1	0	0	0	0	0	0
Commercial Pilots—Total	123,908	1,988	5,935	16,059	18,620	5,177	11,275	23,101	15,631	20,887	5,235
Commercial Airplane (only)	105,402	1,704	5,172	13,410	16,600	4,460	9,480	18,942	13,278	17,421	4,935
Commercial Airplane, Private Glider	1,783	23	84	273	247	62	187	327	183	374	23
Commercial Airplane, Commercial Glider	3,037	24	113	459	440	173	343	465	342	652	26
Commercial Airplane, Private Helicopter	282	5	10	49	45	11	24	44	31	55	8
Commercial Airplane, Commercial Helicopter	12,708	223	529	1,758	1,213	435	1,165	3,200	1,725	2,231	229
Commercial Airplane, Private Glider, Commercial Helicopter	136	3	5	22	22	7	14	26	11	23	3
Commercial Airplane, Commercial Glider, Commercial Helicopter	488	5	20	81	39	26	53	92	52	113	7
Commercial Airplane, Commercial Gyroplane	19	0	0	1	3	2	4	2	4	3	0
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	16	1	1	0	4	0	3	2	0	4	1
Commercial Airplane, Commercial Gyroplane, Commercial Glider	2	0	1	0	0	0	0	0	0	1	0
Commercial Airplane, Commercial Glider, Private Helicopter	24	0	0	5	5	1	1	0	3	7	2
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter, Commercial Glider	11	0	0	1	2	0	1	1	2	3	1
Airline Transport Pilots—Total	102,087	1,030	3,664	12,182	12,876	4,683	8,976	20,773	13,117	17,009	6,777
Airline Transport Airplane (only)	100,317	992	3,622	11,861	12,713	4,569	9,830	20,428	12,838	16,734	6,730
Airline Transport Airplane, Airline Transport Helicopter	1,770	38	42	321	163	114	146	345	279	275	47
Rotorcraft Pilots (only)—Total	5,742	83	256	979	532	203	392	1,819	764	631	83
Commercial Helicopter	5,660	82	256	966	523	199	386	1,808	745	618	77
Airline Transport Helicopter	71	1	0	10	9	3	6	9	18	9	6
Other	11	0	0	3	0	1	0	2	1	4	0

1/ Includes Outside U.S. total.

2/ Outside U.S. includes airmen certificated by FAA who live outside the 50 states or foreign countries.

II. ACTIVE NONPILOT CERTIFICATES HELD

TABLE 14
ESTIMATED ACTIVE NONPILOT AIRMEN CERTIFICATES HELD,
BY FAA REGION AND STATE
DECEMBER 31, 1989 1/

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Total 2/	467,979	325,961	9,875	64,460	10,428	1,365	55,890
United States--Total	446,581	311,428	9,710	62,770	8,439	1,271	52,963
Alaskan Region--Total	4,676	3,254	154	732	169	4	363
Central Region--Total	23,091	17,817	435	3,206	157	12	1,464
Iowa	2,847	2,095	90	535	8	0	119
Kansas	6,337	4,883	113	952	43	4	342
Missouri	11,958	9,405	166	1,388	101	4	894
Nebraska	1,949	1,434	66	331	5	4	109
Eastern Region--Total	65,679	47,108	1,682	8,842	2,014	217	5,816
Delaware	1,235	888	27	158	17	5	140
District of Columbia	334	202	20	82	15	0	15
Maryland	4,307	2,613	141	855	64	10	624
New Jersey	11,212	7,889	238	1,368	352	58	1,307
New York	25,065	19,732	401	2,635	1,114	62	1,121
Pennsylvania	15,247	11,112	366	2,184	304	44	1,237
Virginia	7,268	3,982	441	1,341	143	38	1,323
West Virginia	1,011	690	48	219	5	0	49
Great Lakes Region--Total	60,834	41,678	1,238	10,103	1,027	37	6,751
Illinois	16,559	10,826	279	2,586	333	14	2,521
Indiana	6,091	4,316	190	1,005	74	5	501
Michigan	9,805	6,888	190	1,898	109	7	713
Minnesota	10,535	7,133	140	1,256	329	2	1,675
North Dakota	964	742	26	154	3	0	39
Ohio	11,205	7,944	260	2,080	124	4	793
South Dakota	981	693	22	208	2	1	55
Wisconsin	4,694	3,136	131	916	53	4	454
New England Region--Total	19,268	13,206	350	2,763	259	157	2,533
Connecticut	5,831	3,761	81	779	81	101	1,028
Maine	1,388	905	45	242	28	8	160
Massachusetts	8,547	6,633	165	1,079	94	13	563
New Hampshire	2,040	953	31	370	31	27	628
Rhode Island	823	562	18	156	10	3	74
Vermont	639	392	10	137	15	5	80

TABLE 14
ESTIMATED ACTIVE NONPILOT AIRMEN CERTIFICATES HELD,
BY FAA REGION AND STATE
DECEMBER 31, 1989 1/

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Northwest Mountain Region--Total	40,102	25,678	1,324	5,914	536	142	6,508
Colorado	12,287	7,439	162	1,891	215	27	2,553
Idaho	1,742	1,143	161	311	9	4	114
Montana	2,039	1,286	281	358	5	3	106
Oregon	4,328	2,995	243	716	43	26	305
Utah	3,109	1,908	81	440	19	5	656
Washington	15,553	10,118	363	2,045	235	75	2,717
Wyoming	1,044	789	33	153	10	2	57
Southern Region--Total	82,478	54,682	1,887	11,188	1,958	237	12,526
Alabama	6,104	4,851	135	897	12	9	200
Florida	37,765	25,900	560	5,045	1,187	185	4,888
Georgia	16,720	10,762	287	1,543	313	13	3,802
Kentucky	3,090	1,848	161	479	106	1	495
Mississippi	1,820	1,256	44	373	9	3	135
North Carolina	7,574	4,463	436	1,223	135	14	1,303
South Carolina	2,896	1,861	92	547	24	2	370
Tennessee	6,509	3,741	172	1,081	172	10	1,333
Southwest Region--Total	61,726	44,148	999	8,446	824	73	7,236
Arkansas	2,510	1,800	72	447	17	1	173
Louisiana	4,820	3,627	92	655	48	5	393
New Mexico	2,221	1,476	69	505	25	3	143
Oklahoma	13,885	11,949	161	1,362	35	7	371
Texas	38,290	25,296	605	5,477	699	57	6,156
Western-Pacific Region--Total	88,727	63,857	1,641	11,576	1,495	392	9,766
Arizona	9,605	6,707	197	1,583	240	20	858
California	73,029	53,243	1,330	9,084	1,063	306	8,003
Hawaii	3,185	2,249	57	381	143	10	345
Nevada	2,908	1,658	57	528	49	56	560
Outside U. S. --Total 3/	21,398	14,533	165	1,690	1,989	94	2,927
Other U. S. Areas:	1,601	1,210	34	203	57	1	96
American Samoa	13	8	0	4	0	0	1
Canal Zone	39	15	18	3	2	0	1
Guam	178	101	3	24	5	0	45
Puerto Rico	1,218	973	11	149	47	1	37
Virgin Island	143	103	2	23	3	0	12
Wake Island	10	10	0	0	0	0	0

1/ Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, parachute riggers and ground instructors represent total ratings issued to date. These ratings retain their validity.

2/ Includes Outside U. S.

3/ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 15
ESTIMATED ACTIVE WOMEN NONPILOT CERTIFICATES HELD,
BY FAA REGION AND STATE
DECEMBER 31, 1989 1/

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Total 2/	8,651	2,892	451	3,554	711	1	1,042
United States--Total	8,523	2,877	446	3,490	683	0	1,027
Alaskan Region--Total	137	29	11	49	37	0	11
Central Region--Total	381	182	18	155	4	0	22
Iowa	82	44	2	33	1	0	2
Kansas	124	68	6	45	0	0	5
Missouri	142	60	7	58	3	0	14
Nebraska	33	10	3	19	0	0	1
Eastern Region--Total	1,099	258	88	468	152	0	133
Delaware	25	11	2	9	1	0	2
District of Columbia	11	0	1	6	1	0	3
Maryland	93	14	3	49	8	0	19
New Jersey	152	34	6	60	29	0	23
New York	366	105	18	142	76	0	25
Pennsylvania	256	52	25	117	31	0	31
Virginia	171	27	33	76	5	0	30
West Virginia	25	15	0	9	1	0	0
Great Lakes Region--Total	1,389	466	61	591	103	0	168
Illinois	416	140	15	157	24	0	80
Indiana	140	29	19	58	12	0	22
Michigan	229	67	6	128	13	0	15
Minnesota	174	61	5	51	30	0	27
North Dakota	10	2	0	7	0	0	1
Ohio	291	136	11	117	14	0	13
South Dakota	19	4	0	15	0	0	0
Wisconsin	110	27	5	58	10	0	10
New England Region--Total	369	123	15	164	21	0	46
Connecticut	126	51	4	43	9	0	19
Maine	34	6	1	18	3	0	6
Massachusetts	134	42	8	67	6	0	11
New Hampshire	47	19	1	18	2	0	7
Rhode Island	15	3	0	9	1	0	2
Vermont	13	2	1	9	0	0	1

TABLE 15
ESTIMATED ACTIVE WOMEN NONPILOT CERTIFICATES HELD,
BY FAA REGION AND STATE
DECEMBER 31, 1989 1/

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Northwest Mountain Region--Total	831	287	29	339	40	0	136
Colorado	275	84	1	106	14	0	70
Idaho	33	10	2	18	2	0	1
Montana	36	8	5	22	1	0	0
Oregon	93	18	10	58	3	0	4
Utah	56	18	6	20	2	0	10
Washington	318	142	3	106	16	0	51
Wyoming	20	7	2	9	2	0	0
Southern Region--Total	1,528	419	122	623	143	0	221
Alabama	142	44	6	89	1	0	2
Florida	632	196	17	253	83	0	83
Georgia	183	64	11	62	11	0	35
Kentucky	106	26	9	33	19	0	19
Mississippi	33	9	2	20	0	0	2
North Carolina	175	33	39	76	7	0	20
South Carolina	55	14	4	24	3	0	10
Tennessee	202	33	34	66	19	0	50
Southwest Region--Total	1,096	431	48	451	69	0	97
Arkansas	34	12	0	19	0	0	3
Louisiana	97	48	2	37	8	0	2
New Mexico	71	20	3	40	2	0	6
Oklahoma	213	114	8	80	2	0	9
Texas	681	237	35	275	57	0	77
Western-Pacific Region--Total	1,693	682	54	650	114	0	193
Arizona	205	62	7	98	20	0	18
California	1,374	596	45	505	72	0	156
Hawaii	68	13	0	28	17	0	10
Nevada	46	11	2	19	5	0	9
Outside U. S. --Total 3/	128	15	5	64	28	1	15
Other U. S. Areas:	16	6	0	6	0	0	4
American Samoa	0	0	0	0	0	0	0
Canal Zone	0	0	0	0	0	0	0
Guam	5	1	0	1	0	0	3
Puerto Rico	7	4	0	3	0	0	0
Virgin Island	4	1	0	2	0	0	1
Wake Island	0	0	0	0	0	0	0

1/ Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, parachute riggers and ground instructors represent total ratings issued to date. These ratings retain their validity.

2/ Includes Outside U. S.

3/ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

III. PILOT CERTIFICATES ISSUED

TABLE 16
PILOT CERTIFICATES ISSUED, BY CATEGORY
CALENDAR YEARS 1985-1989

Category of Certificates	1985		1986		1987		1988		1989	
	Original	Additional								
Pilot--Total	138,589	28,420	141,625	32,628	149,640	39,990	148,018	37,921	145,717	46,990
Student	86,060	0	88,699	0	85,611	0	86,193	0	86,193	0
Private	35,402	11,686	34,816	12,672	42,278	16,302	39,900	15,800	35,360	22,240
Commercial	8,404	7,197	8,889	9,241	11,314	11,365	12,042	10,597	13,759	11,778
Airline Transport	6,081	9,192	6,498	10,372	7,678	11,956	7,461	11,209	7,829	12,698
Helicopter (only)	2,105	207	2,209	234	2,217	293	1,947	287	2,240	252
Glider (only)	537	138	514	109	542	74	475	28	336	22
Nonpilot--Total r/	16,432	4,713	16,470	5,010	21,878	5,486	21,317	6,422	23,078	7,688
Mechanic	10,559	3,429	10,998	3,289	15,089	4,195	14,907	4,353	15,923	5,728
Parachute Rigger	157	9	149	11	194	11	142	8	167	21
Ground Instructor	1,359	343	1,386	323	1,825	366	1,716	334	2,133	399
Dispatcher	622	3	516	1	533	3	510	2	431	5
Flight Navigator	1	0	17	0	4	0	270	315	14	0
Flight Engineer	3,734	929	3,404	1,386	4,233	911	3,772	1,410	4,410	1,535
Flight Instructor										
Certificates 1/	4,298	5,921	4,628	5,421	6,327	6,378	4,898	5,234	5,365	7,532
Instrument Ratings 2/	0	11,673	0	13,688	0	18,296	0	16,810	0	20,911

(P) Preliminary

r/ Revised

Note: Additional ratings are entered on current airman certificates as follows:

Private, commercial, and airline transport pilot--aircraft category, class, and type instrument rating.

Helicopter pilot--instrument and type ratings.

Flight instructor--ratings for each aircraft category in which the holder is qualified, and for instrument flying instructions.

Mechanic--airframe and powerplant ratings.

Parachute rigger--senior or master rigger--senior or master rigger ratings.

Ground instructor--ratings for each subject in which the holder is qualified to give instruction.

1/ Not included in total.

2/ Special ratings shown on pilot certificates represented above; not included in total.

TABLE 17
PILOT CERTIFICATES ISSUED, BY CATEGORY AND CONDUCTOR
DECEMBER 31, 1989

Category of Certificates	Total Ratings Issued	Original Issuances				Additional Ratings			
		Total	Examiner	Inspector	No Test	Total	Examiner	Inspector	No Test
Pilot--Total	187,608	145,717	47,190	86,875	11,652	41,891	36,771	1,252	3,868
Student	86,193	86,193	0	86,193	0	0	0	0	0
Private	52,501	35,360	29,218	55	6,087	17,141	16,078	75	988
Commercial	25,537	13,759	9,839	120	3,800	11,778	9,999	117	1,662
Airline Transport	20,527	7,829	6,750	464	615	12,698	10,483	1,042	1,173
Helicopter (only)	2,492	2,240	1,072	37	1,131	252	190	18	44
Glider (only)	358	336	311	6	19	22	21	0	1

Nonpilot--Total r/	30,766	23,078	16,965	541	5,572	7,688	4,612	118	2,958
Mechanic	21,651	15,923	13,128	78	2,717	5,728	4,170	44	1,514
Parachute Rigger	188	167	114	21	32	21	15	1	5
Ground Instructor	2,532	2,133	176	13	1,944	399	40	3	356
Dispatcher	436	431	261	79	91	5	4	1	0
Flight Navigator	14	14	0	1	13	0	0	0	0
Flight Engineer	5,945	4,410	3,286	349	775	1,535	383	69	1,083
Flight Instructor Certificates *	12,897	5,365	3,537	1,714	114	7,532	7,058	444	30

(P) Preliminary

Note: Excludes Renewals

Note: Additional ratings are entered on current airman certificates as follows:

Private, commercial, and airline transport pilot--aircraft category, class, and type instrument rating.

Helicopter pilot--instrument and type ratings.

Flight instructor--ratings for each aircraft category in which the holder is qualified, and for instrument flying instructions.

Mechanic--airframe and powerplant ratings.

Parachute rigger--senior or master rigger--senior or master rigger ratings.

Ground instructor--ratings for each subject in which the holder is qualified to give instruction.

* Special ratings shown on pilot certificates represented above; not included in total.

TABLE 18
INSTRUMENT RATINGS ISSUED:
1989, 1988, AND 1985

Class of Certificate	1989	1988	1985	Percent Change 1989-1988
Total--All Pilots	20,911	16,810	11,537	24%
Private Pilots--Total	11,681	9,772	6,887	20%
Private Airplane (only)	10,554	8,946	6,438	18%
Private Airplane, Private Glider	93	92	75	1%
Private Airplane, Commercial Glider	18	18	1	0%
Private Airplane, Private Helicopter	38	40	26	-5%
Private Airplane, Private Glider, Private Helicopter	3	0	0	--
Private Airplane, Commercial Helicopter	293	272	172	8%
Private Airplane, Other	682	404	175	69%
Commercial Pilots--Total	8,091	6,101	3,493	33%
Commercial Airplane (only)	7,122	5,267	2,751	35%
Commercial Airplane, Private Glider	54	49	29	10%
Commercial Airplane, Commercial Glider	54	41	44	32%
Commercial Airplane, Private Helicopter	12	11	1	9%
Commercial Airplane, Commercial Helicopter	843	723	646	17%
Commercial Airplane, Private Glider, Commercial Helicopter	3	3	10	0%
Commercial Airplane, Commercial Glider, Commercial Helicopter	1	6	11	-83%
Commercial Airplane, Other	2	1	1	100%
Rotorcraft Pilots--Total	1,139	937	1,157	22%
Commercial Helicopter	1,113	909	1,156	22%
Commercial Helicopter, Airline Transport Helicopter	17	22	0	-23%
Commercial Helicopter, Private Glider	0	0	1	--
Commercial Helicopter, Other	9	6	0	50%

TABLE 19
STUDENT CERTIFICATES ISSUED, BY MONTH:
1985 - 1989

YEAR	1985	1986	1987	1988	1989
TOTAL	86,060	88,706	85,661	82,110	87,698 (P)
January	6,414	6,641	6,098	5,410	7,789
February	5,233	5,590	6,543	6,157	7,156
March	6,809	6,472	7,125	7,133	6,833
April	7,492	7,488	7,139	6,606	6,059
May	7,749	7,415	6,164	7,014	6,870
June	8,279	8,211	8,491	8,539	8,675
July	9,249	9,648	8,973	7,796	8,305
August	8,892	8,886	8,389	8,981	8,941 (P)
September	7,973	8,961	8,109	7,624	8,004 (P)
October	7,892	8,133	7,585	7,133	7,129 (P)
November	5,579	5,809	5,912	6,086	5,134 (P)
December	4,499	5,452	5,133	3,631	6,803 (P)

(P) Preliminary